Special Issue

Biodegradable Mulching Films: A Valuable Ally for Sustainable Agriculture

Message from the Guest Editors

Mulching is an agricultural practice spread in farming systems for increasing crop productivity and quality by enhancing soil micro-climate, but also by controlling weeds. For several years, plastic films have been the preferred materials for soil covering, thanks to low cost, long lifetime, and technical properties. However, these films have a major limitation: their disposal at the end of utilization. These plastic materials must be removed from soil and recycled, but this practice is difficult and expensive. Consequently, the plastic is too often not recovered, thereby giving rise to uncontrolled dispersion. In order to overcome these pollution problems, biodegradable mulching films may be the alternative to plastic films. They are composed of polysaccharides, and at the end of lifetime, can be incorporated into soil or be disposed into a composting system and be biodegraded. For this Special Issue, we encourage the submission regarding the following topics: (1) effect of biodegradable mulching films on crop yield and quality; (2) innovative approaches and materials for soil mulching; (3) economic and environmental evaluation of biodegradable mulching films.

Guest Editors

Dr. Eugenio Cozzolino

Research Centre for Cereal and Industrial Crops, Council for Agricultural Research and Economics (CREA), Caserta, Italy

Dr. Ida Di Mola

Department of Agricultural Sciences, University of Naples Federico II, 80055 Portici, Italy

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Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/ plants





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Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

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